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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Lorenz Kopp

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EXAMINER

KO, JASON Y

ART UNIT

PAPER NUMBER

1792

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/536,624	Applicant(s) KOPP ET AL.	
	Examiner JASON Y. KO	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35-64, 66 and 67 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 35-64 and 66 is/are allowed.
- 6) ☒ Claim(s) 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is responsive to the amendment filed on 07/27/09. Claims 35-64 and 66-67 are pending. Claims 35-64 have been amended. Claim 65 has been canceled. Claims 66-67 have been newly added.

Response to Arguments

2. The rejections under 35 U.S.C. 112, second paragraph, made of record in the office action mailed February 4, 2009 have been withdrawn in response to Applicant's amendments filed July 27, 2009.
3. The claim objections, made of record in the office action mailed March 10, 2009 have been withdrawn in response to Applicant's amendments filed June 8, 2009.
4. The rejections under 35 U.S.C. 103(a), made of record in the office action mailed February 4, 2009 have been withdrawn in response to Applicant's amendments filed July 27, 2009.

Claim Objections

5. Claim 67 is objected to because of the following informalities: It is missing a colon after the transitional phrase "comprising" in line 2. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. Claim 67 is rejected under 35 U.S.C. 103(a) as being unpatentable over KIAT et al. (USPN 6,250,318) in view of JOHNSON (USPN 5,334,352).

7. Regarding Claim 67, KIAT et al. teaches a nozzle arrangement (cleaning apparatus with a spray wand that discharges fluids, see abstract) comprising: a longitudinal housing (circular conduit 1200, See Fig. 18B) with at least one fluid feed opening (near reference numeral 1340, Fig. 18B) for feeding the treatment fluid (expected purpose of a fluid feed opening) and at least one fluid delivery opening (microtunnels 1380, Fig. 18B), and whereby an inner cross-section of the fluid channel reduces moving away from the fluid feed opening in the longitudinal direction of the housing (See Fig. 18B), the first longitudinal insert to be wedge-shaped and to increase in thickness moving away from the fluid feed opening of the housing, the fluid channel reducing (See Fig. 18B, velocity balance beam 1280, which is inserted and positioned within the housing, and would also be obvious to be a separate piece which is inserted).

8. KIAT et al. fails to explicitly teach a stiffening member as provided to be extending in the longitudinal direction of the nozzle arrangement. However, it is well known to incorporate stiffening members for further support. Furthermore, it would have been obvious to one of ordinary skill in the art to add a stiffening member because, other structural pieces are known to be added to a manifold, and these pieces can be "stiffening members" or pieces providing actual support may be added for stiffening of a housing.

9. KIAT et al. fails to explicitly teach a second longitudinal insert having a constant thickness, and being arranged such that a plurality of distribution openings are spaced from one another in the longitudinal direction.

10. JOHNSON teaches a longitudinal insert (22, Figs 2 and 6-7 and col. 3 lines 29-35), in which a plurality of distribution openings (bottom portion of insert 22 that aligns with fluid delivery openings 16, Fig. 2) spaced from one another (there are multiple openings spaced apart from one another, aligned with fluid delivery openings 16, Fig. 2) in the longitudinal direction (direction from left to right, Fig. 2) is formed, is arranged so that the fluid channel (central area defined by inserts 22, Fig. 2) defined by the insert is in communication (fluid communication, Fig. 2) with the at least one fluid delivery opening (16, Fig. 2) via the distribution openings (the bottom portion of insert 22, Fig. 2), in order to feed the treatment fluid from the fluid channel via the distribution openings to the at least one fluid delivery opening (this function is expected in view of the structure, see Fig. 2). JOHNSON teaches that by using an insert, the cross-sectional area of the elongated manifold cavity can be modified, which is effective for improved flow-splitting. See abstract.

11. KIAT et al. and JOHNSON are analogous in the art of nozzles.

12. Thus, it would have been obvious to one of ordinary skill in the art at the time of invention to use the nozzle of KIAT et al. and to modify it with the longitudinal insert of JOHNSON, for improved flow-splitting.

13. Furthermore in view of the combination of KIAT et al. in view of JOHNSON, it is expected that the fluid channel to be defined by the two inserts.

Allowable Subject Matter

14. The following is a statement of reasons for the indication of allowable subject matter:

15. Claims 35-64 are allowable subject matter because the prior art fails to explicitly teach or suggest a nozzle arrangement having a longitudinal housing with at least one fluid feed opening and at least one fluid delivery opening, whereby in the housing, a fluid channel is formed, and an inner cross-section of the fluid channel reduces moving away from the fluid feed opening in the longitudinal direction of the housing, and the housing is made from plastic, and there is at least one stiffening member made from metal and extending in the longitudinal direction of the nozzle arrangement, and in the nozzle arrangement a longitudinal insert, having a plurality of distribution openings spaced from another in the longitudinal direction is formed, wherein the longitudinal insert is adjoining the longitudinal housing such that the plurality of distribution openings are in fluid communication with the at least fluid delivery opening, and the insert extends within the housing and is arranged so that the fluid channel defined by the insert is in communication with the at least one fluid delivery opening via the distribution openings, in order to feed the treatment fluid from the fluid channel via the distribution openings to the at least one fluid delivery opening and as the insert increases in thickness moving away from the fluid feed opening of the housing, the fluid channel reduces.

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16. Claim 66 is allowable subject matter because the prior art fails to explicitly teach or suggest a nozzle arrangement for releasing a treatment fluid comprising: an elongated housing having a wall defining an interior with at least one fluid feed inlet for receiving the treatment fluid in a proximal end, at least one transverse fluid delivery outlet for releasing the treatment fluid, and a portion of a fluid channel for feeding the treatment fluid from the fluid feed inlet to the at least one fluid delivery outlet; at least one stiffening member against the wall within the interior and extending along a first portion of the fluid channel; and a longitudinal insert adjoining the wall within the interior and extending along a second portion of the fluid channel, the longitudinal insert defining a plurality of transverse distribution openings spaced from one another in a longitudinal direction such that the distribution openings are aligned with the at least one fluid delivery outlet in order to feed the treatment fluid from the fluid channel thereto and wherein the insert is wedge-shaped with a relatively narrow end near the proximal end.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

18. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory

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action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON Y. KO whose telephone number is 571-270-7451. The examiner can normally be reached on Monday-Thursday; 9:30am-7:00pm.

20. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL BARR can be reached on 571-272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

21. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service

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Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JYK/
Jason Y. Ko
Patent Examiner, Art Unit 1792
26 August 2009

/Michael Barr/
Supervisory Patent Examiner, Art
Unit 1792